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a surprising willingness to compromise with the Communist regime. The politically neutral or pro-Communist segment of the Protestant clergy is a minority and the Protestants of Hungary have had their recent martyrs just like the Catholics. Nevertheless, this minority seems to be relatively larger than the number of Catholic priests collaborating with the Communists.

[208] Catholic priests join the Communist political propaganda only sporadically. Those who are willing to lend their signatures to "peace campaigns" and other propaganda are on the verge of excommunication--several of them have already suffered this penalty--and their flock is aware of these leanings and does not trust them like the "regulars."

The importance of the Church opposition to the State is most significant in the villages where the population is most devout and the priests have great prestige among their parishioners. Social activities, the few which are legally permitted, give the parish priest an opportunity to keep in close contact with the members of the community.

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From the geographical point of view, Hungary, the flattest among the so-called satellite countries, lends itself with difficulty

153 668 to guerrilla and other clandestine activities. On the Great Plains, even the larger agricultural cities have a stable population, and strangers can be spotted easily among the local farmers whose activities are carefully watched over by the Communist police. The hill country of northern Hungary and Transdanubia, with its industrial cities and relatively dense forests, would provide readier shelters for those who might try to go unsuspected or unnoticed. Border zones, especially those bordering neighboring non-Soviet states--are thoroughly combed by reliable Communist patrols and are the least accessible.

668 There is no information readily available concerning possible subversive cells in action in Hungary or names of possible subversive leaders. How much mass appeal and actual influence the émigré Hungarian statesmen may still have upon their fellow countrymen is a problem too controversial and unsolvable to be discussed here. Certainly the names of many of these former leaders evoke cherished memories among certain older people in Hungary, but their actual power of inciting to action is highly debatable.

000 It must be reiterated here that Hungarian society is in the midst of a turmoil it has never before experienced in the modern era. The preceding brief and sometimes subjective statements may or may not be

101 population of Jobbágyi (once also privileged), which has a German
361 majority (1496: Jobbagy Alsoewr Felseewr OSz.). As a result of its insular position, the region has abundant contacts with German influences; otherwise, it has ethnographical connections with the Magyars of Vas, Alsoorseg, and Zala. The people, like the Szekelys, engage in domestic industries, and go 'down to Hungary' with their wares. -- Even in this there are a few differences between the Alszeg and Felszeg of Felsőőr. They are also split as to religious denominations.

Göcsej ('the Cöcsej', Göcsejség, called jocularly: Cirgácia, 361 1818: Kerkacia; 'mockingly': Cergatia, MNy. XIII, 303; in the 133 northern part of the Nova district frequently: 'szegek országa (the land of the nails)'; 1266 Egurzug, 1323: Piliskezeg OSz.) is an area without exact boundaries; including roughly the part of County Zala which falls between the Zala River, Principális-canal (Nagycsatorna, Válicka), Kerka River, and Dráva River. The villages themselves do not admit that they belong to the area, because they feel mockery in the word Göcsej or from Göcsej; therefore, according to them, Göcsej begins (everywhere) with the 'neighboring village'. Its villages with their poor streets (muddy) preserved many traditions.

Hetés constitutes a group in Göcsej's immediate neighborhood, which is ethnographically almost in every respect identical with the latter, lying between Göcsej, Őrség, and the Vendség.

[137] Hegyhát: between the Zala and Rába Rivers, and between Őrség and Kemenesalja, in Zala County, partly characterized by pine forests like Őrség, partly by beech forests, like Kemenesalja, together with the latter in the earlier period predominantly used for pasturing. It is joined by Kemenesalja, which possesses geographical traits identical to the northern part of Hegyhát; and is also related to in natural features, but offers a better means of making a living.

Kemenesalja, a continuation of 'hegyhát also in Vas County beginning approximately at Hegyhátgyertyános under the wooded ridge called Cser (one time obviously 'Kemenes'), between the Rába and Marcal Rivers; with its many villages is a group settled in the Marcal valley; in fact, the name is used to designate a geographical area or region. Its northernmost village, keeping the name of the area, is Kemenesszentpéter. Its most typical villages are located closely below the ridge; more exactly, these constitute the 'kemenesalja' settlements.

Sokoróalja, the flattened extensions of the low chain of hills which advance toward the Rába River with their wide valleys in Győr County, between the Bakony-ér Creek and the Marcal River; formerly a district of the county; in the immediate neighborhood of the plains of Győr /5/ and of the geographical area called Kis-Alföld in technical literature. 361 133

The Kis-Alföld--which has no traditional collective designation--constitutes in many respects a homogenous geographical area and ethnographical unit, which has been, in the past, divided by the Danube only as far as transportation is concerned. It is divided into smaller or larger geographical areas which also include ethnographical regions by its many rivers, river flats, marshes and swampy lakes--most of which are drained today. These areas are the following:

Rábaköz, surrounded by the Rába, Répce, Rábca (Hanság-canal) Rivers, is a part of Sopron County and in a smaller portion of Győr County; it was a governmental unit as early as the Middle Ages, called 'szék' ('sedes'). (1240: Rabakuz, 1381: in districtu Rabakuz OSz.) Before the rivers were controlled, in the north it faded into the Hanság. Its characteristic, centrally located village is Kapuvár, the 'kapu /(gate)/', 'kapuvár /(gate-fortress)/', of the once marshy border region. The name of its Győr County portion, which is the triangular area east of the line of the Lórét-canal is: Tóköz; and the area which was drained by the Lórét-canal and which was flooded in earlier times by the Rába is called: Lórét.

Hanság (according to local pronunciation Hany, Hanyság: 1584: han NyK. XXV, 166) is the marshy empire of the Ikva, Répce, and Rábca Rivers; a world of reeds and soggy meadows, with the typical geographical conditions and ethnographical picture characteristic of such areas, with limited farming and domestic industries. Its villages which at one time were surrounded by water ('hanyi') are: Kóny, Osli, Sövényháza, etc.

Fertő (Lake Fertő; around 1200: stagnum Fertew. OSz; 1317: lacum Ferthew CSÁNKI: UL 683) is a swampy lake region in Sopron and Moson Counties, its lake area today being restricted to a small portion of land and to certain periods. Above it is the plain of Moson; and in this plain between the Danube and Lajta Rivers (Lajta-köz) is Fenyér. (Old name of the Lajta River: Sár; 1415: fluvium Saarvize alio nomine Laytha OSz.)

361
23 Szigetköz (by its other name Kis-Csallóköz) is an island on the right side of the Old Danube surrounded by the Danube's Moson branch (locally called Kis-Duna) and the Öreg-Duna /(Old Danube)/. The part which falls on the side of Moson is called: Föltáj (according to local pronunciation Fótáj), that on the Győr side: Altáj.

Csallóköz (1334: Chorloukuz OSz.; also known as Aranykert /(Golden Garden)/ with reference perhaps to its gold-collecting population or to the fables mentioning its magic wealth of golden fruits; also known as Nagy-Csallóköz /(Great-Csallóköz)/ as opposed to Szigetköz which is also called Kis-Csallóköz /(Small Csallóköz)/; its name in the Middle Ages was 'Kis Pozsony Megye /(Little Pozsony County)/', 'comitatus minoris Posonii'); in the earlier days also a governmental, military, and nobiliary unit (1269: Challokewz NySz., 1355: /6/ In comitatu Choullowkuz, 1355: In provincia Cholloukuz, 1429: In districtu Challowkuz. OSz.); its Feltáj /(upper region)/ belonged in the past to the district of the fortress of Pozsony, its Altáj [631] /(lower region)/ in that of the fortress of Komárom; thus, its has two political subdivisions: the upper and lower districts of Csallóköz. It is an island-like area encircled by the Érsekujvári or Vág-Duna /(Vág-Danube)/ (Kis Duna/(Little Danube)/, which leaves the Old Danube at Pozsony, increases in size after uniting with the Vág River at Gúta, and rejoins the Old Danube at Komárom. In earlier times little streams and headlands divided it into numerous parts. Of these divisions Csilizköz is worth mentioning, it is encircled by the streamlet called Cziliz (today it is known as Csiliz Canal), which leaves the Old Danube at Baka and rejoins it at Kulcsod. Its name can be found in the name of the districts of Győr County (Tósziget-csilizköz), which is the governmental framework for three 'vizköz /(area surrounded by water)/' (Tóköz, Szigetköz, Csilizköz).

Turning back from the Danube in the direction of the central mountain range of the Dunántúl, we have to mention the areas which cannot be included in Kemenesalja. These are the Marcal region in the valley of the Marcal River and the western Bakonyalja /(lower Bakony)/, which consists of the portion of the Veszprém area sliced into two by the Bakony range that lies around Pápa.

Bakony (1193: Bokon MNy. XXIII, 566) is not only a geographical area--but, especially on a geographical basis, --also a historical formation. As early as the thirteenth century (even earlier, as a royal landhold) it became a separate ispánság /(smaller political unit)/, 'comitatus Bokoniensis', but not a county (1269: in comitatu Bokoniensi MNy. XXIII, 567). Here there is a chain group of

'szék-s' or 'noble villages' which were in the service of the king or in that of a bishopric, enjoying more or less privileges, such as the onetime Szék of Vecse ('sedes'), which included the villages of Vecse, Kisjenő, and Tapolcafő; the villages of Szentgál, Szentkirályszabadja, Vámos, Nemesszalók, Karakószörcsök, which preserved the traditions of the royal hunters, herdsmen, forest-rangers, and game wardens; the village of Tés with its island-like position today; and the villages of Dudar, Gyulafirátót, Nemesvita; and innumerable others belonging to the Bakony area from the Veszprém and Zala regions. Also, Bakonybél in the 'bel /(insides)/' of Bakony should not be forgotten. 361 133

East of the Bakony-Vértes-Gerecse mountain range we find the typical geographical region of Pilis, which once was a separate county (today it is united with the Counties of Pest, Solt, and Kiskunság). Its characteristic village is Pilismarót, now located in Esztergom County. -- According to its ethnographical appearance the Island of Szentendre (or Monostor), which is encircled by the Danube branches of Vác and Szentendre (Old Danube and and Little Danube) belongs to the Dunántúl territory with its villages of Ki-soroszi, Tótfalu, Pócsmegyer, and Szigetmonostor.

Vértesalja is the area between the valley of Mór (Sárviz) and the creek of Szentlászló, which flows toward the lake of Velence, with the city of Székesfehérvár in its southern corner.

/7/ Mezőföld is the area south of the above region, bound by the line of Sió-Balaton-Sárviz-Duna, which is separated from the Alföld not only by the Danube, but also by an embankment of fifty or sixty meters. Its most typical landscape and forms of life are to be found in the area of the Séd and Sárvize Rivers (1283: fluvium Saar prope Albam OSz.): the Sár, and along its upper portion in Sárrét, lying west from Székesfehérvár (in earlier days 'Sármellyék' (1356: Saarmellek OSz.); under this name it was part of a district of Fejér County). In line with these names we find a row of villages marked with the word 'sár' along the watery, an elongated area advancing toward the Sárköz of County Tolna, such as: Sárbogárd, Sárszentmiklós, Sáregres, Sárcece, Sárszentlőrinc, Sárpilis, etc.

Sárköz (Sárközség; 1521: Sarkez; in 1459, and also earlier in the papal tax-assessment record; in this period also the name of a deanery; PESTY, Az elt. régi várm., 225); lies on the lower section of the Sárvize, in Tolna County. The Kalocsa-Baja portion of the Danube is here swelled by the waters of the Sió, the Koppány, and

361
133 the Kapos; and along its right bank the winding river formed a region broken by innumerable streamlets, backwaters, 'little-Danubes', constituting an extensive, muddy 'Vizköz /(area surrounded by water)/', which existed until not too long ago. On the west it has a distinct boundary in the hill range of Szekszárd-Báta. The Danube--in earlier times was not even suitable for a political boundary line, especially, as its left bank was the same type of 'sárköz /(muddy region)/' as the Tolna portion; (we will discuss [162] this later). The typical ethnic groups of the Sárköz of County Tolna are the inhabitants of: Öcsény, Decs, Sárpilis, Alsónyék, Báta. The onetime life pattern of this region has lived only in tradition ever since the time when the waters were channeled.

Völgység, in the neighborhood of Sárköz and Mezőföld, in the bend of the Kapos and Sárviz rivers, bound by the two, constitutes, also, a political unit--as the District of Tolna.

The Mecsek region, a continuation of the area to the south, lies in Baranya County, with numerous Magyar villages guarding many ancient customs. Some of the villages are Hosszúhetény, Zengővárkony, Mánfa, Budafa, etc.

Ormányság (Ormánság, 1257: inter Drawam et Vrman CSÁNKI, II. 520), in Baranya County, lies, according to a description from about a hundred years ago, 'from the bridge of Lak in the outskirts of Kémes to the tip of the County, to the village of Bogdása on the Dráva River', and includes 22 Magyar and once Croatian (Sztára) village. Between the Villány Mountain and the Dráva River, covering the drainage area of the Feketeviz and Okor streams, the region consists of a chain of singularly typical small areas encircled by water, which in earlier days were covered with forests; and therefore, it has many smaller units ('vizköz'); and formerly it had even more. Ormányköz, Bőköz, Okorvidek (1267: in districtu Ormankuz CSANKI, II, 533, MNy. XXV, 24; 1494-9: Poss. Beulkewz CSANKI, II, 472; 1183: iuxta Okur /8/ CSÁNKI, II, 512.). The region of Dráva-Dunaszög is called: the Alvidék. (Other names: KISS, Ormányság, 10. 1.).

Somogy (Somogyság, Somogyország, 1055: Sumig NyK. XXV, 142, Somogyság ÉRDY C. MNy. XXII, 187) this territory is divided into two parts by geography and ethnography. Belső-Somogy /(Inner-Somogy)/: The southern part of the county, also separated politically, comprises the area of the districts of Kaposvár, Szigetvár, Nagyatád,

and Csurgó, lying south of the Kapos River. Külső-Somogy /(Outer-Somogy)/ is the rest of the county. Roughly, the line drawn between Dombóvár-Kaposvár-Nagykanizsa may be considered the dividing boundary between the two. It has two ethnographically typical areas worthy of mentioning: the hilly country south of the Kapos River, the Zselic (Zsilic, Zelicség); and the neighboring villages of Buzsák, Tótszentpál, and Varjaskér, which are of Slovak origin, located just behind Nagyberek on Lake Balaton in the Lengyeltót District in the neighborhood of other villages of similar or of Southern Slavic origin. The most characteristic Magyar villages of the two different areas are: Kiliti, Szenna, Csököly, Csurgó, Iharosberény, etc. 361 133

The great water area of Lake Balaton, especially in earlier times, created a peculiar brand of coastal and aquatic life and joined the inhabitants of the two shores, which in many respects differ remarkably from each other geographically into a similar life and cultural pattern. The people name their shore lines after areas of political subdivisions: Somogy, Szala, Veszprém side. (The Balatonfelvidék /(Balaton highland)/ name of the northern shore has literary origin.)

In close connection and in a related form of culture with the people of the Southern Dunántúl live, close to each other, the inhabitants of three Magyar villages located on the other side of the Drava River (Szlavonia): In Szerém County, Kórógy; in Verőce County, Haraszti and Szentlászló; all three of them were built in the flats of the Vuka River, which has been regulated since; (Haraszti's position today is its third--because of the water). According to their tradition, they settled here at the time of the Tartar invasion of Hungary (in 1242). They were serfs of the freehold estate of Vukovár. All of them belong to the Reformed Church. The fourth Magyar village of Slavonia is Rétfala, near Eszék, the population is mixed, there are Serbian, Croatian, German, Czech, and Slovak inhabitants. The Magyar inhabitants of the four villages are called mockingly 'brendzó' ('brencó', 'berencó') by the people of Baranya. The local nicknames of the people of Szentlászló are 'bohó', 'puzás', 'taporca;' that of the people of Haraszti, 'bóbac'; the inhabitants of Rétfalu are also called 'puzás' The inhabitants of these villages call the people of Baranya and Bácska by these three names. 361 101

361 developed either central units of large agricultural estates ('pusztak' with a population of hired farm laborers), or--using the term popular in the southern Alföld--szállás--or the term popular in other parts, and adopted more generally--tanya-communities, which came into being partly under the protection and government of the cities which were not destroyed, behind the walls of which the population of the nearby villages took refuge (during the Turkish occupation, more than once, during a single night). In this way some of the villages, earlier of an urban character, grew into agricultural 'peasant' cities covering immense areas (Kecskemét, Szeged, Szabadka, Hódmezővásárhely, Debrecen, etc.); all of which, closed into a tremendous 'pusztagyepu /(surrounding puszta region)/; consider themselves separate ethnic units (for expl. Debrecen 'within Basahalom'); and in most of the cases they actually constitute such units. (There are examples in the past of their joining together: Cegléd, Kecskemét, Nagykörös: the 'Three cities').

The largest such 'pusztaság' was, as late as the second half of the last century, an area south from the Budapest-Cegléd line, approximately extending to Halas between the Danube and Tisza Rivers, and consisting of 2500 km.^{2}; the passable sandy surface of which served as one of the main routes of traffic between Vienna, Buda, and Belgrad, during the Turkish occupation, and even later. The foreign traveler was amazed to see the endless 'Puszta' scene and the economic form of life the backbone of which was nomadic animal husbandry. This explains the sixteenth century meaning of the word 'from the Alföld', which uses the terms alfeoldy, alpheod, 'ochsenhandelsleut', to designate those "who drive cattle from the Alfeold and the land of the pagans", or in other words 'hajtók /(drivers)/'.

133 From the great uniformity of the Alföld two considerable sandy elevations rise above the average level; one, (called by its partial name) the Homokság, lies between the Danube and the TiszaRivers, extending from the Budapest-Cegléd line to the Ferenc Canal; the other is the Nyirség which rises from the lowlands of the Tisza-Szamos-Kraszna-Ér-Berettyó-HortobágyRivers. /11/ The position of these elevations and the surrounding lowlands and their relations to the encircling and traversing rivers influenced the development of characteristic geographical regions, and economical, political, and in general historical ethnic units; independently from them similar groups came into being around the Tisza, Berettyó, Körös, and Maros Rivers.

and Maros Rivers.

133 ● 361

To turn our attention to the particular regions, areas, and ethnic groups: the best crossing place from the Dunántúl is the Sárköz region of Tolna, which has a complementary part, forming one unit with it, on the left bank of the Danube. Its name is also identical, it is called: Sárköz. During the Middle Ages--partly--this region was situated on the right bank of the Danube and belonged to Tolna County; just before the Turkish conquest of Hungary the villages of Csanad, Sükösd, Kákony, Szentistván, Istvánmegye, and Szeremle, which used to belong to Pest County, and today belong to it only partly, --belonged to Bodrog County. --According to the papal land assessment register, one of the archdeaneries of the Archbishopric of Kalocsa was situated in 'Sárköz'; in the fifteenth century the Fajsz branch of the Abbacy of Szekszárd (Fajsz today is on the left bank of the Danube) was also situated in 'Sárköz'; and Szakmár, about fifteen kilometers east of the Danube, belonged to this. The village of Szanto of County Bodrog was also in 'Sárköz' before the Turkish conquest. These facts--which in general show the historical role played by bodies of water--serve as proof of the role of the Danube and other lowland rivers as a divider or unifier of areas.

Ethnographically we may add to Sárköz the villages of the triangle between Dunapataj-Kiskörös-Baja and the Danube typical of which are: Bogyiszló É sekcsanád, Bajaszentistván, Szeremle. The scenery is also peculiar; there is abundant vegetation of a meadow character called 'turján' ('turjány').

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Above Sárköz, between the sandy region and the Danube, as a continuation of the formerly discussed geographical and ethnographical region, from Sárköz to Dömsöd extend the marshy grasslands, turjans of the onetime Solt (Zsolt) County (later district), consisting roughly of todays Rackeve and Dunavecse districts; an area in the hiding places of which the more fortunate portion of the population was able to stay during the Turkish occupation, like the inhabitants of Pereg, Domsöd, Dab, Tass, Szalkszentmárton, Dunavecse, Solt Dunapataj, Ordas. The Zsolt area was, during the Middle Ages, a thickly populated part of Fejér County.

In that part of the area between the Danube and Tisza Rivers, which lies to the south from Sárköz, we mention Bács County, named after the once existent Bács city, which is known more commonly as: Bácska (Bácskaság). During the Turkish occupation its Magyar population perished completely. The same fate was

were a few more Hajdu settlements in other regions, too. After the reannexation of Transylvania, the privileges of those who received them collectively and not individually were not recognized by the Chamber; and almost all the remaining villages became privately owned; as a consequence, serfs of a different origin, also, settled among their population. These were mostly Roman Catholics; thus, in the territory of the Reformed Hajdus and in general in the area on the other side of the Tisza River, religious denomination is also an ethnic sign (similarly in Kiskunság). Those belonging to the Reformed Church are the more free, older, more strongly rooted Magyars. According to this twofold origin, for instance, Berettyóújfalu has two 'szer': its Hajduszer and Parasztszer /(Peasant szer)/.

The settlement of the Hajdus on waste 'sand' and 'fen' appears to be a repetition of the first settlement of the Jazygian-Cumanians. Both of them were warlike peoples, engaged in nomadic animal husbandry. Part of the Hajdus settled in the region known as the two Sárrét (by its old name: 1615: Rétköz MNy. IX, 223), an area of marshes and reeds, where they established themselves among the swamps, canals, streamlets, hidden meadows, 'balkány'-s, many 'islets', and 'ormágy'-s, and higher land. Its geographical position formed and preserved the life pattern and ethnographical characteristics of the inhabitants of the region, including that of the non-Hajdus who settled there later. Originally Sárrét was part of the flats of the Ér, Berettyó, Sebes-Körös, Fekete-Körös Rivers /15/ (before the river was channelled). Its major part (in the area where Bihar, Békés, and Jász-Nagykun-Szolnok Counties meet) is called Nagy-Sárrét /(Great Sarret)/ Sárret of the Berettyó; its minor portion on the flatlands of the Sebes and Fekete-Körös Rivers in the Bihar-Békés area is called Kis-Sárrét /(Little Sarret)/ (Sárrét of Bihar; in earlier periods also a district of Bihar County: the Sárrét District). Nagy-Sárrét had additional abundant water supply from the Hortobágy River, which brought the floodwaters of the Tisza River. All this, in the recent past, constituted the world of the people of the meadows, the fishermen, and the nomadic herdsmen.

Adjacent to Sárrét is the Hortobágy melléke /(Hortobagy region)/ of a higher elevation (according to local pronunciation Hortobágy mejjike, its literary name 'Hortobágy puszta'), a region

left barren by deserted villages (Ohát, Zám, Máta, etc.), which was mostly incorporated by Debrecen, the 'civis city', the city of 'civis citizens', by its nickname the Calvinistic Rome', which in itself forms a distinctly characteristic unit. The area is one of the few remaining refuges of extensive nomadic animal husbandry. 361 139

The hill country between the Ér and Berettyó Rivers is called: Érmellék; it is an important wine district, extending from the Szalacs-Margita line to Félegyház. The area between the hills of Érmellek and the Réz Mountain surrounding the Berettyó River, extending as far as Bihar village, or the Kösmő Creek, belongs in another class of topographical types, and it is called Hegyköz.

The Ér, Tur, Szamos, and Tisza Rivers, according to the terminology used in the Upper-Tisza region, have 'hátjai /(backs)/', with rows of villages, which are held by the waters 'on their backs'. They are not hills, not even mounds, merely the banks of the river at the edge of the flats; sometimes they are not even near the river; (Szentmihály on the 'tiszahát' is about eight kilometers away from the nearest bend of the Tisza River). This row of villages by the water and the general areas are called: Érhát, Turhát, Szamoshát, Tiszahát (1307: Er prope Diozeg OSz., as to creation of names: 1109: Érhat OSz.). There is a Tiszahát of Szatmár, of Bereg, of Szabolcs. The latter, for example, on the basis of local observation (on the left bank) includes the following villages: Tiszaeszlár, Tiszalök, Tiszabüd, Szentmihály, Tiszadada, Tiszadob, Tiszapolgár; (on the right bank): Tiszaladány, Tardos, Csobaj, Baj, Taktakenéz, Prügy (in earlier days called Pthrügy, according to local pronunciation: Tügy). The whole group of the latter villages is known as the Taktaköz, an island-like area encircled by the so-called Takta, which actually is a branch of the Tisza River. It neighbors on the area between the Sajó River and the Takta, and is encircled by the Zemplén bend of the Sajó, called Harangod. The villages of this area, the Taktaköz, and the village of Tiszapolgár show many typical characteristics of the Felföld and its Palots groups.

/16/ At two places in the abundantly watered area of the Ér, Kraszna, Szamos, Tur, Borsova, and Latorca Rivers permanent and substantial bodies of water accumulated; these two are the Ecsedi-láp /(Moor of Ecsed)/ by its local name: Rét, and the Szernye (Swamp). The former is a moorland, situated on the left bank of the Szamos River, extending to the more elevated parts of the sandy

361
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areas of Nyir, which provided a peculiar form of marsh and meadow life to the about twenty villages which settled down around it (before the water regulations). Its northern part between Mátészalka, Kocsord, Györtelek, and Nagyecsed is known as the Kis-láp /(Little Moor)/; the rest is the Nagy-láp /(Great Moor)/.

The region between the Tisza and Szamos Rivers has been known since early times as Szamosköz (not so long ago one of the districts of Szatmár County had the same name: Szamosköz District; the area between the Szamos and Kraszna Rivers was the Krasznaközi District).

We have to mention two more of the larger in-between water areas in the Tisza region which surround, together with the above mentioned regions, the great sandy elevation of Nyir. One of them is Rétköz situated north of the sandy elevation of Szabolcs, between the Lónyay-canal and the Tisza River, having been at onetime the meeting place of the floodwaters of the Tisza and those of the Nyirség region. The other is Bodrogköz, bound by the Latorca, Bodrog, and Tisza Rivers (1456: Thyzabodrogkez OSz.) its Tisza area (from Cigánd downwards) is called Hosszúrét, and it is sparsely populated.

Surrounded by the above mentioned watery regions rises a sandy plain, with smaller and larger bodies of accumulated water, at one time white with birch forests, mainly a part of Szabolcs County, and in a smaller portion part of Hajdu, Bihar, and Szatmár Counties, called Nyir (Nyirség, Nyirvidék), which was known under this same name in the Middle Ages as a singular unit 'partes', 'provincia', 'comitatus' (around 1200: A siluis Nyr, Per partes Nyr Osz.), next to Rétköz, with 'Nyir egyháza /(Nyir one house)/' in its center. Because of its sands it is an area more easily accessible to mounted armies than the surrounding marshy regions and, as a result, it suffered more destruction. The city of Nyiregyháza itself, for instance, in 1707 had only 49 'külön kenyeres ember /(man of independent bread)/'; it gained in population in 1753 by the influx of Slovaks from the region of Szarvas, Csaba, Mezöberény, and Orosháza, whose descendants are the 'Tirpák', Of the 'Nyir /(Birch)/' itself hardly anything was left; and with it disappeared the domestic industry of birch-oil, birch-balsam, birch-brandy, birch-broom, and birch-hoop, and many other characteristics of the old 'Nyir'.

133
361 These areas of the Upper-Tisza region were originally surrounded on the north and east and from the direction of the slopes of the Transylvanian Central Mountains by extensive forests. Such forest regions were represented by the once existent Erdőhát between the Kőrös Rivers; the Belényes region of the onetime 'bölényes /(of the buffalos)/' forest in the valley of the Fekete-Kőrös River with its Magyars of a peculiar appearance /17/(whose forefathers, according to tradition, 'came from the land of the Székely'); Szilágyság, situated behind Érmellék; Bükkalja of the Szamos region of Szatmár County; Avasság below and between the Avas Mountain; Tiszavölgy of Máramaros County (even today this is a major timbering area); Bereg itself (in the Middle Ages Beruk, 'Berek'); and most of all the Erdő /(forest)/' which lent its name to Erdély /(Transylvania)/. According to literary tradition, this 'erdő /(forest)/' would be the Szilágyság. Szilágyság (around 1200: Zyloc Anon.) extends roughly over the area of the present Szilágy County; in the past, one part of it belonged to Közép-Szolnok County, and that part, known as the Kővár region, became an independent governmental unit, remaining such until the reorganization of the counties in the 1870's. The name 'Sylvania' given to Szilágyság, from which, it is said, Erdély received its Latin name of 'Ultrasylvania' or 'Transylvania' is probably the product of humanistic etymology. Szilágyság always was, and still is, an area the boundaries of which cannot be precisely drawn. At times it has been a part of Transylvania, and according to the present governmental subdivision of the Reformed Church, it still is treated as Transylvania. Its center is Zilah (according to local pronunciation: Zilaj).

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4. FELFÖLD. -- The country above the Alföld, consisting of the northern mountain regions, as contrasted with the 'alföld /(low land)/' logically would be called 'Felföld /(highland)/' (1469: Paulus Felfudi, 1575: fel föld, Fel földi magyaroc NySz.), but actually this name, just like the name Felső-Magyarország /(Upper-Hungary)/ is of a literary origin; its more commonly used name being Felvidék /(Up-country)/. The inhabitants of the area do not include the whole of Upper-Hungary under this name, using it merely to designate, from place to place, the region lying 'upward', 'toward the mountains' from them. (In reverse, in a downward direction the following regions are designated as ' alvidékek' or 'alföldek /(lowlands)/'; even the shepherds of the Bodva Valley use the term Alföld in this manner.) 133 361

In the Felföld we find larger units of Magyar ethnic groups only at the middle and lower sections of rivers which run to the south. After leaving the lowlands of the Upper-Tisza, /18/ we find above Bodrogköz the famous region of Hegyalja; the people of which have been molded into a peculiar unit in many respects by its extensive viniculture and wine production; and even its surrounding environment has been influenced by the peculiar needs of its industry (for instance, the making of casks, wooden vessels, etc.). According to a hundred year old determination, the villages of the wine-growing Hegyalja 'wine-region' include the following: Szántó, 101 133 361

Galga, Zagyva, Tarna, and Eger Rivers. The northern boundary 101
of the Palots region is marked linguistically by the Slovak language. The population of the area which may be classified on a geographical basis as Palots is known in literature as the people of Nógrád, Karancsalj, Mátravidék, Heves, Borsod, Gömör; their entity constituting the Eastern Palots Group. The inhabitants of the Erdőhát of Gömör, /19/ who show Palots characteristics, are called by a name similarly mocking in flavor: Barkó (1495: Emerico Barko OSz., like Matyó). Efforts to draw the precise boundaries of the Palots area by listing the names of the villages supposedly belonging to it cannot be taken seriously. Such determination can be made only upon a historical or political basis (Jazygian-Cumanians, the people of Őrség, Székelys, Hajdus); but such historical separation is no obstacle to exchange of cultural forms, even if certain prohibitions (such as the manner of dress) served the artificial isolation.

As we have said before, certain characteristics of Palots cultural forms may be found among the groups of people who live to the south and the east on the Alföld, and even more so among those inhabiting the mountain region to the west, which includes parts of Hont (huntyiak--v. o. Hunt-Pázmán--), Bars, and Nyitra Counties, even though writers native to the Palots region claim that the people of Hont are not Palots. We may summarily call the group west of Hont the Western Palots Group.

In the area of Duna-elve (1575: Dunaelue felső Magyar ország, 361
Heltai-krón. NySz.), which extends to the west above the Danube River, as a remnant of a political subdivision from the Middle Ages, the Mátyusföldje name and region has been preserved (1436: Mathiusfewldy; OSz.). Its name was derived from MÁTE CSÁK, Palatine, and Lord Lieutenant of Pozsony, who ruled the area as a rebellious oligarch († 1321). Today's Mátyusföldje consists roughly of the districts of Pozsony County lying above Csallóköz, the Galánta and Alsó-Nyitra districts, and the Udvard District of Komárom County (and perhaps the Párkány District of Esztergom County). The [161]
inhabitants of Csallóköz call the people living between the Danube and Vág Rivers 'those of Mátyusföld'.

Where the mountain range of the Kis-Kárpátok /(Little- 133
Carpathians)/ divides Pozsony County in two, the foothill region that falls on this side, the southeastern side, is known as the fourth 'Hegyalja' of the country, called more precisely Hegyalatt (district of ecclesiastical subdivision); the area that falls on the

other side of the mountains is known as Hegyen túl /(on the other side of the mountain)/ (in earlier times it was also the name of a district: Hegyentúl District).

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5. ERDÉLY. -- Magyar common knowledge knows only of one extensive region of the country which in itself constitutes a well recognized unit (in earlier times a separate country), and that is Erdély (according to some ancient sources Erdélység; according to the pronunciation of the inhabitants of the Trans-Tisza region Eirdeij; by another name /20/ Erdély-ország (around 1200: Erdeuelu Anon.; -- Erdeel, Túróci-krón.)). Before 1542 the three 'nations' of Erdély (Magyar, Székely, and Saxon) constituted a politically sovereign, self-governing unit, which became later an independent principality. Its peculiar ethnographic picture is caused by its being separated from the mother-country for several hundred years, and by its geographic position of a closed highland unit. It had constant contact with the mother-country through the valleys of the Maros, Sebes-Kőrös, and Szamos Rivers, mainly because parts of the neighboring territories of Hungary were also parts of Erdély ('Partium') from time to time. During the Turkish occupation these contacts were more permanent--through the Szamos Valley--with the royal territory, the remnants of which contact can still be found among its folk-cultural elements. The inhabitants of Erdély call their fellow countrymen, who do not come from Erdély, 'those from Hungary'. Erdély's three groups, determined on the linguistic basis: the Magyars (Székelys), Saxons, and Wallachians had more or less mutual influence upon each other. In contiguous regions parts of their cultural forms are

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

CHAPTER II

THE FACE OF HUNGARY, 1919–1940

131 Within the limits imposed upon Hungary by the Treaty of Trianon, the state consisted, roughly, of the central plains which had formed the heart of the old 'historic Hungary'. Strips of the plain were, however, assigned, mainly on account of the railways running through them, to all the neighbouring countries, except Austria, while north of Budapest Hungary retained some of the foothills of the Carpathians, which at that point run far south. German and Italian help since 1938 put the Hungarians in dubious possession once more of nearly all the plain, as well as of the mountains of Ruthenia and northern Transylvania. In this chapter, however, only passing reference will be made to what lies outside the Trianon frontiers.

133 **VILLAGES OF THE GREAT PLAIN.** The Hungarian plain has a character which is very much its own, and very different at least from anything in Western or Central Europe. It is also, in many respects, remarkably uniform to the eye: in whatever part of it the traveller may be, he cannot doubt for an instant that he is in Hungary. This uniformity is, of course, partly due to human
342 agency. All the cottages, which are the homes of more than half the population of Hungary, are built, with local variants, on the same general pattern. All are one-storied—a house with more

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

in most of the west (the fringe assigned to Austria in 1920 excepted), the Magyars have been able to absorb the foreign influences which penetrated there, the plain has not yet had time to digest the enormous numbers of immigrants which poured into it from 1700 onward. The centre of it is, it is true, purely Magyar to-day, and it is here that the most characteristic forms of Hungarian national life are found. But in the south and east of it the Magyars never recovered the ground which they lost under the Turks, and in fact these areas were split off from Hungary in 1920 on the strength of their non-Magyar majority. Most of the north was, of course, detached for the same reason; here the Slovak and Ruthene peoples had had a continuous existence from early times, and the Magyars had never penetrated in large numbers, although the landowners and the officials had been Magyars, or had adopted the Magyar language and ways.

WESTERN HUNGARY. The Dunántúl is not only sheltered by the Danube from the east, its whole geographical position is less open than that of the Alföld. It is a plain, by comparison with the Alps or the Carpathians, and most of it is low-lying; but it is traversed by several ranges of considerable height, the most important of which, beginning in a series of curious isolated hills of volcanic origin north of Lake Balaton, runs in more continuity through the regions known as the Bakony Forest and the Vertes hills, and reaches the Danube above Buda. The Bakony is the only part of Trianon Hungary which contains any large forests. Up to a century ago it was famous as a haunt of 'betyárs'

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

133 (highwaymen) and is still the wildest part of Hungary.

South of the Bakony lies Lake Balaton, the playground of Hungary, dotted with fishing boats and yachts and surrounded by villas and pensions. Thence to the Drave, which forms the frontier with Croatia, the country is green, open and undulating; the best part of Hungary for cattle and horse-breeding. To the east, near the Danube, rise a few more high hills, where Hungary's largest coal deposits are found. To the west, the country rises gradually, and becomes more tangled as it approaches the borders of Styria—one of the remotest corners of Hungary, seldom visited even by Hungarians, and preserving many ancient national characteristics and customs. Finally, in the north-west corner, the Rába, winding its way in many channels through a flat valley to join the Danube, forms an open space known as the 'Little Plain' (Kis Alföld).

361 All this country, although still somewhat primitive to Western eyes, bears the signs of ancient cultivation. There are many small towns, most of them founded by Germans (who long formed the chief urban class in Hungary) and some containing fine buildings of the seventeenth and eighteenth centuries, and in a few cases, of earlier date. Sopron (Oedenburg), near the Austrian frontier, Pécs, with its ancient cathedral and Esztergom with its modern one, and Székesfehérvár, the oldest capital of the country, are the most interesting. None of these towns, however, is big and most of the population lives in villages, usually of 3–4000 inhabitants. The village is usually com-

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

Pest faces it. It had a fine façade of fashionable hotels and cafés. Behind these the great city stretched out, first in a dense commercial quarter, then in an endless string of dreary factory suburbs. The whole city, including the satellite towns of 'Greater Pest', had a population of well over a million. It had some fine modern buildings, as well as some very ugly ones, but little that was worth seeing.

THE ALFÖLD. Beyond the outskirts of Pest begins the Alföld—the Great Plain proper of Hungary, an enormous expanse cut in two by the sluggish waters of the Tisza, but possessing few other natural features and, in the main, as flat as Norfolk. It is the home of everything that is commonly regarded as most characteristic and most romantic in Hungarian life. On its empty horizons the Fata Morgana (the Hungarian 'délibab') dances when the sunshine is hot. On such of the empty spaces as have not yet been put under the plough, the old Hungarian life may still be seen. Enormous herds of the ancient Hungarian cattle, which tradition avers the old Magyars to have brought with them from the East—lean, grey beasts, with huge horns and dark, gentle eyes—roam the plains in the charge of wild cowboys (*csikos*) in elaborate sheepskin cloaks. There are plains where the great bustard breeds and marshes haunted by the stork, the crane, the egret and all manner of exotic wild fowl. But in the main, the old life is dying out; where it is still preserved, as on the famous Hortobágy, west of Debreczen, it is chiefly as a museum piece, for the benefit of tourists. Most of the country has been brought under normal cultivation.

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

flimsy mud-built houses. It is only recently that the work, not only of regulating the rivers against flood, but of irrigating the plains against drought, has been seriously undertaken. With modern methods an intensive cultivation, in particular of fruit trees, was begun. Through it some centres, such as Kecskemét, have achieved considerable prosperity.

THE BOUNDARY HILLS. The plain is bounded by hills. In the south the plain reaches right down to the frontiers of historic Hungary, and the first hills are those of Serbia. In the north, however, the Trianon frontier still left Hungary a certain amount of hilly country. This comes down close to the capital itself north of Budapest; indeed, the Danube runs here through what is almost a gorge, with the ruins of old castles overhanging it. East of Budapest the plain reaches further north, but there are still considerable hills, the summits of which are covered with beech forests and their lower slopes with vineyards. Here, too, are some noteworthy towns: Miskolcz and Diosgyör, centres of industry, and Eger, seat of an archbishopric, with the remains of an old Turkish fortress and a Turkish minaret still to be seen. Beyond this again comes another group of isolated hills, which produce the famous Tokaj wine, the richest and most powerful of all the Hungarian wines, of which it is said that it is 'the king of wines and the wine of kings'.

The mountains which enclose the Alföld on the east are those which form the boundary of Transylvania, a great table-land encircled north, east

9: Eppstein S-4 (no date) 1945 EC1 Hungary EC1

and south by the bend of the Carpathians. This is not the place to describe this province, which was transferred from Hungary to Rumania in 1920.[1] It is a wild and fascinating country, full of high mountains and wild forests in which bears, wolves and lynxes still lurk, and inhabited by three races: the Rumanians, who form the majority, the Magyars and the Germans or 'Saxons'. These last are the people whom Browning alleges to be the descendants of the children wiled away from Hamelin by the Pied Piper. In actual fact, they are the descendants of colonists from the Rhineland, who came here, on the invitation of Hungarian kings, many centuries ago. Their neat prosperous villages and little walled towns form a curious contrast to the picturesque but untidy Rumanian hamlets or the ancient and dilapidated castles of Hungarian nobles.

[1] See British Survey Handbook No. 2, *Rumania*.

12. Free Europe Committee U-4 (no date) 1954 EC1 Hungary EC1

EXPLORATIONS AND DISCOVERIES

BEFORE 1920

315
433
135

While the development of Hungary's oil industry has been greatly influenced by the political and economic developments of the last century, its very existence was determined by geologic events which occurred millions of years earlier.

Most of the area under study was dry land during the Mesozoic era, and considerable erosion took place; accordingly, oil accumulations are to be expected mainly in the abundant Tertiary formations. In the early Tertiary period the area began to sink.[1] The sinking, however, was not uniform. Some parts of the former mountain systems remained in relatively higher positions, and to the badly eroded remains of the older mountains new ones were added, formed by Tertiary volcanism. Several basins developed as a consequence of the volcanism and of the uneven sinking (which recent surveys indicate is still occurring).[2] Transgression followed the sinking, and the basins were gradually filled with Tertiary sediments, which in some places reached over ten thousand feet of thickness.[3]

The largest of the basins thus formed is the Great Hungarian Basin, which coincides with the Great Hungarian Plain. It includes most of presentday eastern Hungary, the Yugoslav province of Vojvodina and narrow strips along Romania's western and Carpatho-Ukraine's southern boundaries. The two other major basins are the Győr Basin to the northwest (divided about equally between Hungary and Czechoslovakia) and the Transylvanian Basin to the southeast (part of Romania).

[cf. cat. nb, p. 51 for footnote -- analyst]

133

Formations			European Classifications	
	Quaternary		Alluvium (Holocene)	
			Diluvium (Pleistocene)	
Neozoic	Tertiary	Neogene	Pliocene	Levantinian Pontian {Upper Pannonian Lower Pannonian
			Miocene	Sarmatian Tortonian, Helvetian } Upper Mediterra Burdigalian, Aquitanian } Lower Mediterra
		Paleogene	Oligocene	Chattian Rupelian Ligurian
			Eocene	Ludian Bartonian Auversian Lutetian
			Paleocene	Ypresian Spernacian Thanetian Montian
Mesozoic	Cretaceous	Upper	Danian Senonian Turonian Cenomanian	
		Lower	Gault: Albian	
			Neocomian: Aptian, Barremian, Hauterivean, Valanginian, Wealden	
	Jurassic	Upper Middle Lower	Malm Dogger Lias	
	Triassic	Upper Middle Lower	Keuper Muschelkalk Bunt-sandstein	
Paleozoic	Carboniferous			
	Devonian			
	Silurian			
	Cambrian			

[Facing page 21]

EXPLORATIONS AND DISCOVERIES

315
133
135

The northeast-southwest trend of the Bakony Mountains and the Vértes and Pilis mountains separates the Győr Basin from the Great Hungarian Basin. The Győr Basin is bordered to the west and northwest by hills along the Austrian border (which include outcroppings of the submerged northeast extension of the Alps) and by the Lajta Mountains and the Little Carpathian Mountains.

Beyond the Little Carpathians is the Vienna Basin, straddling the Czechoslovak-Austrian border.

The Transylvanian Basin is limited to the east and south by the Carpathian Mountains and to the north and west by a chain of the remains of the pre-Tertiary mountain system and Tertiary volcanic hills, forming a quadrant of a circle.

Finally, a minor area having some oil-geological interest is the valley of the Iza River in northeast Romania

315
135

Exploration and exploitation before 1880, though primitive and inefficient, established the existence of oil in many parts of Hungary, and furnished leads for later explorations.

For centuries Hungarians had been aware of oil occurrences in some regions of their land. Before the recent era of intensive exploration, oil was found in the Flysch zone in the northeast in Ung and Maramureş (Máramaros) counties (see Uzhorod [Ungvár]) and the Iza River Valley.[1] Oil traces were found in the southeast corner of Transylvania in the same geological formation at Sósmezo. Asphalt-impregnated Pontian (Pliocene) sandstones occurred at Derna and Tătăraş (Tatáros), east of Oradea (Nagyvárad). Oil was found at Recsk on the northern margin of the Great Hungarian Plain, and there was a minor occurrence at Jibău (Zsibó), between the Transylvanian and Great Hungarian basins.

The earliest explorations were made in the southwest region, now part of Yugoslavia, where oil was known to occur at Selnice (Szelencze) and Peklenica (Bányavár)

[1] [For footnote, cf. cat. 116, p. 51 -- Analyst]

EXPLORATIONS AND DISCOVERIES

315 daily, 99.25 percent methane and 0.75 percent nitrogen. It was then brought under control and is still furnishing gas.

[133] This discovery[1] led to a detailed geological survey of the entire Transylvanian Basin. The area of the Transylvanian Basin is nearly five million acres. The thickness of the sedimentary fill (Tertiary) is estimated to be about 15,000 feet. Pliocene is found at some places only in the center of the basin, and most of it is eroded. Miocene is represented by a 5,000-foot Sarmatian section, 6,000 feet of Upper Mediterranean (Tortonian and Helvetian) and about 3,000 feet of Lower Mediterranean (Burdigalian and Aquitanian).

Well-developed sand strata in the Sarmatian, in which about 15 gas horizons have been located, form the main reservoir of the Transylvanian gas fields. Some gas has also been found in the Tortonian.

Oligocene and Eocene (older members of the Tertiary) are known only at the eastern margin of the basin, where they rise to the surface.

In the center of the basin the Tertiary is folded into domes (brachy anticlines), badly eroded at the top. Pliocene is found only in the synclines, and 500 to 2,000 feet is eroded from the Miocene also. However, sufficient gas-bearing sand horizons separated by thick, impermeable marl strata were preserved.

The initial Sărmaş well is located on a large dome and is producing gas from Sarmatian sands covered at that point by only 11 feet of alluvium. Thirty-six such domes were mapped by the survey.

By 1919, just before Hungary lost control of Transylvania, 23 wells had been drilled into six of these domes. They had a combined potential daily production of 71.1 million cubic feet. They included ten wells at Sărmaş, yielding 45 million cubic feet daily; four at Saros, yielding 15 million cubic feet; four at Bazna, yielding 1.3 million

1 [i.e. of the important gas field at Sármás in Transylvania -- Analyst]

EXPLORATIONS AND DISCOVERIES

315 cubic feet; two at Samsund (Mezősámsond), yielding 4 million cubic feet; two at Copsa-Mică (Kiskapus) yielding 2.9 million cubic feet; and one at Zău (Mezőzáh), yielding 2.9 million cubic feet. All six domes are still producing.

Gbely (Egbell) Oil Field

Gas seepages reported in 1911 in the vicinity of Egbell (now Gbely, Czechoslovakia) led to the most important oil discovery in Hungary prior to World War I.

•[133] A survey was undertaken of this part of the Vienna Basin. Geologically, the Vienna and Győr basins are similar; but the sequence of Tertiary formations in the former is more nearly complete. The Pleistocene cover impeded the survey, which was completed with the help of the torsion balance survey, invented in 1890 by a Hungarian scientist, Baron Lorand Eötvös.[6] This was the first proof of the effectiveness of his method of locating oil-bearing structures. All the present commercial oil fields in Hungary were discovered this way, and the method went into commercial use in Mexico in 1921 and in the United States two years later.[7]

A dome was outlined two miles west of Gbely and another about five miles south of that town. The first well, completed in January 1914, produced about 300,000 cubic feet of gas and 100 barrels of oil daily from the Sarmatian (Miocene) strata; subsequent drilling proved the structure to be complicated with several faults. Later two more domes of similar character were found, immediately north and northeast of Gbely.

Production in this field amounted to 77,125 barrels in 1933 and 83,971 barrels in 1934. More recent figures are available only for total Czechoslovak oil production; but from these the Gbely production from 1940 to 1950 can be estimated as: 41,000 barrels in 1940; 46,000 in 1941; 68,000 in 1942; 50,000 in 1943; 46,000 in 1944; 22,000 in 1945; 49,000 in 1946; 52,000 in 1947; 51,000 in 1948; 73,000 in 1949; and 70,000 barrels in 1950.

7 [Cf. Cat. 116, p. 52 for source -- Analyst]

EXPLORATIONS AND DISCOVERIES

FROM 1920 TO 1948

315 Southwestern Hungary: Anglo-Persian Concession

The success of the first Gbely well in 1914 encouraged further explorations. The next year government geologists mapped several structures in southwest Hungary, between the Drava and Sava (Száva) rivers. In 1918 the first well drilled in this area, at Bujavica, produced about nine million cubic feet of gas daily, from a depth of 1,180 feet; at 1,300 feet it yielded some oil.

In 1920 this well, along with those farther north at Selnice and Peklenica, was included within the borders of Yugoslavia. But the geologists, convinced that the oil-yielding formations continued into Zala County north of the Drava, resumed their surveying in what was now the southwest corner of Hungary, between the Drava and Danube rivers.

• [133] Most of this area is covered with young Pleistocene sediments which, deposited almost horizontally, veil the structure of the older formations. The results of the survey were therefore inconclusive; and the government elected to grant a concession for the region rather than gamble on an exploratory drilling operation of its own.

In 1921 a three-year concession went to the D'Arcy Exploration Company, an affiliate of the Anglo-Persian (now Anglo-Iranian) Oil Company, Ltd. It was renewed for another three years in 1924. D'Arcy formed the Hungarian Oil Syndicate, Ltd., which sank three wells during its six-year concession without finding any commercial oil deposits.

The first well probed 5,700 feet at Budafapuszta for a continuation of the Selnice-Peklenica structure. The structure at Selnice and Peklenica can be clearly observed as a surface anticline, but there is little surface indication of the structure of Budafapuszta. The well was abandoned as a dry hole at 5,700 feet, in Lower Pannonian (Lower)

EXPLORATIONS AND DISCOVERIES

315 Initial Explorations:

The same geologic problems that had made the initial government survey of western Hungary indecisive and that had resulted in Anglo-Persian drilling three wells without finding oil now confronted Eurogasco. Most of the region is overlaid with recent sediments, horizontal, or nearly so, except in the vicinity of Mesozoic mountains. Individual strata can be followed only for short distances; and cross-bedding makes the dubious data of surface geology even more unreliable. Moreover, no oil or gas seepages were known in the area.

To overcome these problems Eurogasco launched an intensive geophysical campaign.

● [133] Aside from the Hungarian part of the Győr Basin, which is flat, and the Bakony, Vértes, Pilis, Velence, Mecsek, and Villány mountains, western Hungary is hilly; and hills interfere with the torsion balance survey. Time-consuming land-surveying operations and long computations are required to compensate for the effect topographic relief has on torsion balance readings. The Eurogasco survey was made with exceptional care, however, and proved quite successful in detecting and outlining subsurface structures.[13]* About 20,000 torsion balance stations were set up before this method was made obsolete in 1940 by the newer gravity meter survey, which has fewer topographic limitations. By 1943 some 12,000 of the latter stations had been made.

Besides these gravity methods, the most common geophysical methods used in oil prospecting are seismographic(reflection and refraction) and magnetic methods. All are indirect since they indicate not the presence of oil itself, but geological structures favorable to oil and natural gas accumulation. By 1943 the gravity anomalies had been checked with the reflection seismic method. Seismograms were recorded at about 2,500 shot points, and a magnometer survey of 15,000 stations furnished additional information.

* [cf. cat. 116, p. 54 for source -- Analyst]

12: Free Europe Committee U-4 (no date) 1954 EC1 Hungary EC1

both may prove to be of practical importance. 315

[133]

The Velence Mountains east of the Bakony range are of granite and probably a remainder of the Variscan system. To their southeast, gravity and magnetic anomalies are rather irregular and characteristic of intra-basement masses. This indicates relatively shallow crystalline rocks of varying density and magnetic susceptibility, rather than sedimentary structures. Gravity anomalies indicate a relatively narrow trough between the mountains and the Danube. It is probably filled with sediments. Gravity maxima at Baracska and south of Adony may indicate productive structures.

Southeastern Hungary: German Concession, 1940-1944

[471]

In 1940 the Hungarian government granted a German concern the oil and gas concession of the southeast quarter of Hungary—east of the Danube and roughly south of parallel 47. The concessionaire, the Hungarian-German Mineral Oil Company (Magyar-Német Ásványolajipari Társaság R.T., or MANAT), was owned in equal parts by four German firms: Gewerkschaft Elwerath, Hannover; Deutsche Erdöl AG, Berlin; Preussische Bewerks-und Hütten AG, Berlin; and Wintershall AG, Kassel. The last-mentioned firm was in charge of explorations.

The MANAT contract was similar to MAORT's but contained an added paragraph extending the concession to cover certain areas held by Hungary before World War I, if and when Hungary recovered them. MANAT's concession was subsequently extended under this paragraph to include two parts of Yugoslavia obtained by Hungary in 1941: the area (bordered by the Tisza and Drava rivers and by the Trianon boundary), including Bachka east of the Danube and Baranya west of the Danube; and a strip straddling the Mura River west of Zala County.

The German government subsidized exploratory drilling to the extent of RM 2,979,487.74 in the original concession and RM 1,975,182.13 in the Yugoslav areas.

EXPLORATIONS AND DISCOVERIES

Footnotes:

1. Louis de Lóczy, "Tectonics and Paleogeography of Basin System of Hungary, Elucidated by Drilling for Oil," Bulletin of American Association of Petroleum Geologists (Tulsa, Okla.), XVIII (1934), 925-941.

2. Jenö Gárdonyi, A régi felsörendü szintezési alappontok magasságainak változásai (Budapest, 1933). Hungary was surveyed by the Military Geographical Institute, Vienna, 1873-1894, and again in 1921 by the Hungarian Triangulation Bureau. Base points showed no relative change in altitude along a northeast-southwest axis through Budapest, the Velence granite mountains, and southeast of Lake Balaton. Points southeast of this axis sank and points northwest of it rose, relatively, in the intervening years. In general, the relative rise or fall was greater at points farther from the axis. The base point at Györ rose 105 millimeters—about four inches—in thirty years. The base point at Szeged sank 123 millimeters in forty years. If these rates are constant, in a century Szeged will sink 657.5 millimeters, or about 26 inches, relative to Györ. A point north of Lake Balaton, in the Bakony Mountains, rose 202 millimeters in thirty years. If the whole area is sinking, these mountains are sinking more slowly even than the Szeged area. While the time between surveys was too brief to justify conclusiveness, this explanation conforms with the apparent geological origins of the area.

3. Károly Roth von Telegd, Magyarország Geológiája (Budapest: Danubia, 1929).

4. Ferenc Böhm, "Ásványolaj és földgázbányászat Magyarországon 1935-ig," Magyar Bányászati és Kohászati Lapok (Budapest), LXXII, No. 9 (1939), 153-189.

5. Uniform oil and natural gas legislation is desirable because these fuels must be produced together when